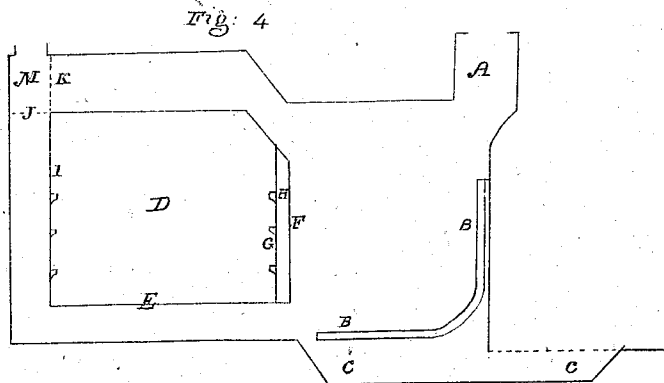
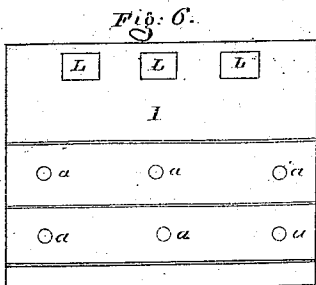
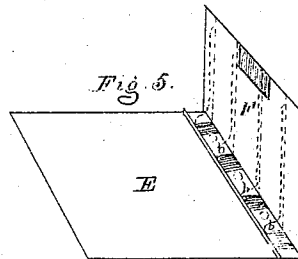
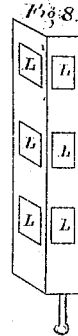
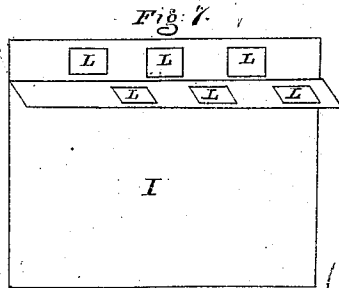
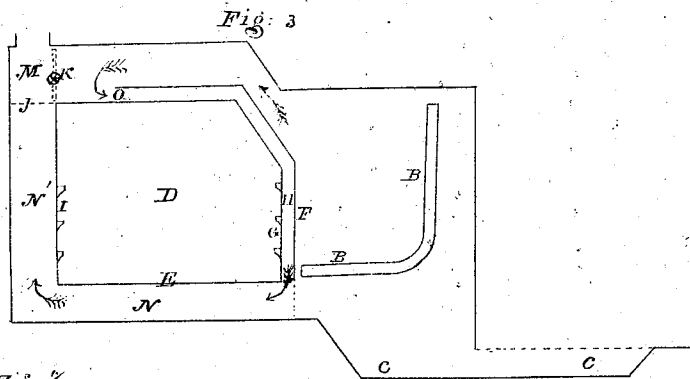
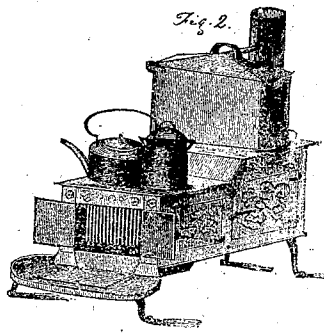
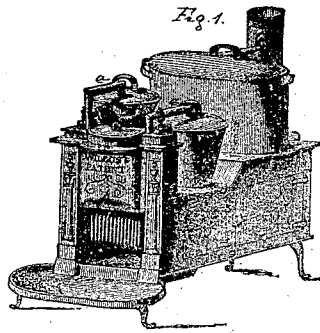


JAMES WILSON.

STOVE FOR COOKING.

Patent No. 351,

Patented August 15, 1887.



UNITED STATES PATENT OFFICE.

JAMES WILSON, OF NEW YORK, N. Y.

STOVE FOR COOKING.

Specification of Letters Patent No. 351, dated August 15, 1837.

To all whom it may concern:

Be it known that I, JAMES WILSON, of the city of New York, in the State of New York, have invented certain Improvements in Stoves for Cooking, which improvements may in part be applied as well to those in which wood is used as a fuel as to those in which anthracite is burned.

Figure 1, in the accompanying drawing, represents a perspective view of one of my stoves, furnished with a feeder adapting it particularly to the burning of anthracite; Fig. 2, is a perspective view of one of my stoves without a feeder; Fig. 3 a vertical section of Fig. 1, through the middle, from front to back.

A, is the feeder in front, in which coal may be contained, and through which it may be supplied to the fire; this feeder may extend nearly or quite, across the whole width of the front, or it may occupy a less space, as may be preferred; it usually extends up to the height of from six to twelve inches above the top of the stove, which height may be equal to that of the cooking utensils in its rear. From these cooking utensils, steam pipes, or tubes, *a, a*, Fig. 1 lead into openings which communicate with the fuel in feeder A, or they may communicate with the fuel in the grate when such a feeder is not used. By this means, the steam is not only conducted off without any annoyance arising from its odor, but in passing through the ignited coals is decomposed, and produces a portion of flame which greatly aid in the operation of cooking. The difference between this mode of procedure, and that of carrying the steam and vapor into the smoke pipe, as ordinarily practised, and as shown in the back boiler of Fig. 1, is obvious. In stoves for burning wood, the feeder will not be used, and it may be omitted when coal is burned; the fuel, in that case, being fed to the fire either through openings on the top of the stove, or by side, or front doors as may be preferred.

In the section Fig. 3, A is the feeder, B B, the grate and C, C, the ash pit.

D, is the oven, surrounded by the flues, and by the chambers for heated air.

Fig. 4, is a section, similar to Fig. 3, but without the feeder, and exhibiting a modification of the flues, and heated air chambers, having the same intention with the foregoing, but differing from it in arrangement, one main object in both being to heat the

lower part of the oven without establishing a direct draft under it, but allowing the whole, or larger portion, of the draft to pass up from the fire directly under the cooking utensils sustained by the upper plate. In effecting this, I use some devices which I have previously secured by Letters Patent, as applied to other stoves, and which I, therefore, do not now claim in these individual capacities, as constituting parts of my present invention, but only in so much as they are combined in a novel manner with double oven and with union oven plates same as E, F, G, H, which are themselves new. Those parts which are similar in Figs. 3 and 4 are designated by the same letters of reference. The bottom plate of the oven E and the plate F, which constitutes the fire back, are both cast in one piece, which combined plate has been denominated by me the union plate. This plate is shown separately at Fig. 4.

G Figs. 3 and 4, is the front oven plate, having between it and the fire plate F, a space, H, for heated air, or passing the entire flame through it in heating oven. The plate F, has ribs on its interior, or back side running up and down, in the part shown by the dotted lines, Fig. 5. These ribs occupy the whole width of the space H serving to keep the two plates firmly united between the openings or flue through union plate giving great strength to, and preventing the burning out of the fire plates uniting this plate firmly to the bottom plate of the oven and by their junction without the openings for flue communicating thereto a large portion of the heat from the fire plate I, I. Figs. 3, 4, 6 and 7, is the back plate of the oven, Fig. 6 being its interior, and Fig. 7 its exterior side.

J, Fig. 7, is an offset, or projection, cast on to this plate and corresponding with the dotted lines J, J, Figs. 3 and 4.

K is the part corresponding with K, K, in the same figures.

L, L, L, are perforations, to be closed or opened, as desired, by the rectangular sliding valve, or shutters, Fig. 3, which has similar perforations, and which is to occupy the space M, sliding against the sides J, and K; the perforations being so arranged that when those in J are entirely closed, those in K will be entirely open, placing them, therefore, under full control, the plate G and I, Fig. 3, are perforated with holes, as shown

at *a, a, a*, Fig. 6, for the purpose of admitting heated air directly into the oven from the heated flues, or air chambers; and these are also, perforations through the bottom oven plate, leading into the space H, as shown at *b, b, b*, Fig. 5. This space H is otherwise perfectly closed not constituting any portion of a flue leading to the smoke pipe other than those through the oven, as above named. When the rectangular, Fig. 8, is made to close the openings in J, all direct communication through the flues or spaces, N, N, will manifestly be cut off, and the draft from the fire will pass up under the boilers &c., while, at the same time, experience has shown that the oven will be amply heated. By closing these openings, one half the draft will be divided, and pass in both directions.

In Fig. 4, the space H is not closed at top, as in Fig. 3, but opens at *o*, into the upper flue, under the upper plate of the stove. The union plate, constituting the fire back, and the bottom plate of the oven is, in this, the same with that above described as used in Fig. 3, as are the arrangement of the sliding shutter, Fig. 8, and its appendages. In this modification of the stove, the heated air from the fuel passes up under the cooking utensils and through the opening O, into the space H, between the two plates constituting the back of the fire place, and the front of the oven; the sliding shutter determining the passing, or the arresting, of the draft in any degree required; when these are closed or nearly so, the heat is reflected back with great force into the space H by an in-

verted course forward descending through the union fire and oven plates, in rear of fire part of said plate and front of side oven plate, securing the same passage of fire in the double as single oven.

What I claim as my invention and wish to secure by Letters Patent, is—

1. The passing of the steam from the cooking utensils into, and through the fire, in the manner, and for the purpose set forth.

2. I also claim the particular manner in which the heated air is made to operate in the compartment H, under both the modifications herein described, with, or without, the perforations for admitting the air so heated, directly into the oven; the whole being combined in a stove substantially the same with the foregoing, having the combined plate forming the back of the fire place, and the bottom of the oven, the draft being conveyed through said union plate and regulated by means of the rectangular valve, or sliding shutter, giving direction to, and passing all the fire, through the union plate, or dividing it at pleasure.

3. I claim the dovetail or fan light damper in construction, or separate, double, or single, in connection with the side oven plate, in giving the greater heat to the oven and passing the same through the open flue in any kind of stove, also the dropping the hearth of stoves in front of fire for purpose of roasting.

JAMES WILSON.

Witnesses:

A. TUCKER,
JAS. KIPP.